



## **Arizona Society of Engineers Luncheon**

### **Remarks by Gov. Jan Brewer**

### **Thursday, October 28, 2010**

Two weeks ago today, I had an opportunity to help dedicate the Michael O'Callaghan-Pat Tillman Bridge, an incredible 2,000 foot long structure spanning the Black Canyon and connecting the Arizona and Nevada Approach highways nearly 900-feet above the Colorado River.

I said at the time we should never forget that the bridge was ultimately built with human hands.

We should never forget the bridge was built with the hands of journeymen carpenters, concrete finishers and steel workers who provided the skills necessary to form, pour, and construct the bridge and the hands of people who operated the cranes and the equipment that moved wood, steel and concrete with precision.

But, before the bridge was built, it was first engineered.

Some of you might have worked on the bridge or know of someone who did.

It is, nevertheless, a tribute to your chosen profession, Engineering, and a testament to the marvels that you've given Arizona – large and small -- and the ideas yet to come.

I wanted you to know how much I appreciate what you do, and how you do it.

You are more than great engineers, I see you as job creators.

I see the linkages between infrastructure, economic development and Arizonan's quality of life.

That's why I established the Arizona Commerce Authority and a private-sector leadership board focused on growing and diversifying Arizona's economy and creating quality jobs – including jobs in rural Arizona.

Ultimately, this is about diversifying our economy – exporting our greatest natural resource to secure billions of dollars in capital investment and jobs for Arizona.

So, we know the Arizona Comeback has started.

But, there are still some things we DON'T know.

We don't know what Arizona will look like in 2040 or 2050.

Will communities be built around job centers, health care facilities, and first-class educational institutions?

Will our citizens have a multitude of transportation options, including the opportunity to get to essential services and their jobs without getting in their cars?

What we do today through our state partnerships and our partnerships with our local, regional, Tribal and private sector partners -- will determine if we create an Arizona that fosters prosperous communities and successful families.

I believe that the basic necessities leading to a state filled with successful families and prosperous communities are:

- Opportunities for citizens to choose where they live and how they get around;
- Opportunities for citizens of all ages to receive an excellent education and create their individual path toward economic prosperity;
- Opportunities for citizens to thrive in entrepreneurial and workforce pursuits;
- Opportunities for citizens to spend time with their families in community and recreational activities;
- And, opportunities for citizens to enjoy the beauty of Arizona's diverse geographic landscapes.

At the state level, we are utilizing 21<sup>st</sup> Century solutions to create prosperous communities.

I believe we can move forward, creating more jobs and economic prosperity, with less government, less spending, less regulation. And there has never been a greater sense of urgency.

But, to make this happen, we need more highly skilled workers and leaders --- MORE PEOPLE LIKE YOU!

According to a follow-up report published by the National Academies last month, the United States ranks 27th out of 29 wealthy countries in the proportion of college students with degrees in science or engineering, while the World Economic Forum ranked our country 48th out of 133 developed and developing nations in quality of math and science instruction.

Even more troubling, in a 2009 survey, nearly a third of this country's manufacturing companies reported having trouble finding enough skilled workers.

So, I'm happy to announce today that I'm dedicating one point five million dollars from the State Fiscal Stabilization Fund -- to Science Foundation Arizona for the expansion of the Engineering Pathways program at rural community colleges.

These funds will allow a greater concentration of effort on industry relationships and engineering pathways that serve our state by meeting local industry needs. In other words, our workforce will be prepared to meet the demands in engineering jobs.

We are moving forward, one step at a time.

I'm also dedicating one point six million dollars to the Science Foundation Graduate Research Fellowship program.

The program is one of the largest in the country and is geared toward attracting the best and brightest students in key areas of strategic value to Arizona, critical to bringing more high-tech, innovative industries to the state.

The fellowships are awarded through each of the state's universities to top graduates in science, math and engineering.

This will encourage a new level of aspiration for Arizona's universities — to attract the truly talented young scientists and engineers that normally have gone to places like Stanford and M.I.T.

I feel strongly that the best way for our families, our state and our country to grow its way out of this current financial crisis is through education and jobs . . . and the two go hand in hand.

I said earlier that we won't know what the world will look like in 2040 or 2050, but here are a few telling trends. I'm sure many of you have heard these statistics, but I think they're worth repeating.

The most recent ten-year employment projections by the U.S. Labor Department show that of the 20 fastest growing occupations projected for 2014 -- 15 of them require significant mathematics or science preparation to successfully compete for a job.

Even the requirements for occupations that historically did not require a high school education have dramatically shifted.

If current trends continue, over 40 percent of factory jobs will require post-secondary education by 2012.

If you couple these with the fact that a person with a Bachelor's degree will earn, on average, almost TWICE as much as workers with a high school diploma over a lifetime (two point one million dollars compared to one point two million dollars), this has a significant impact on our ability to diversify, strengthen and stabilize our economy .

This is why we had a strong science, technology, engineering and math focus in our Race to the Top application -- which is now our blueprint for education reform.

Last month, I instructed my P-20 Council to come back on December 15th with recommendations on how to prioritize the activities contained within that plan for immediate implementation.

We cannot wait any longer for high school and college graduation rates to increase, reading and math scores to rise, or for achievement gaps to close.

I WILL not wait.

Neither will you.

And, neither will our future.

So, I appreciate the opportunity to share some thoughts and exciting news with you, and I look forward to working with you in the challenging – and rewarding -- days ahead.

Who says Arizonan's can't build engineering marvels anymore?

I say to them, take a look at what our engineers and workers can accomplish! Look at what we can all accomplish by working together!

Thank you – our engineers and job creators – THANK YOU – for setting Arizona back on the road to prosperity.

God bless you and your families, and may God bless the great state of Arizona.

Thank you.